

CLAIMS

1. A method (e.g., 400) for remotely controlled gateway (135) management, the method (e.g., 400) comprising the steps of:

receiving a request (120-1, 120-2) for content (164), the request (120-1, 120-2) comprising global addressing information (125-2, 126-2) of a gateway (135) and corresponding to one or more network appliances (105) on a local network (165) accessible via the gateway (135);

determining gateway configuration information (139, 145, 134) suitable for configuring the gateway (135) to pass one or more content streams 190, each comprising portions of the content (164), to the one or more network appliances (105); and

communicating the gateway configuration information (139, 145, 134) with the gateway (135).

2. The method (e.g., 400) of claim 1, wherein the step of communicating further comprises the step of communicating the gateway configuration information (139, 145, 134) with the gateway (135) through a secure connection to the gateway (135).

3. The method (e.g., 400) of claim 1, wherein the steps of determining gateway configuration information (139, 145, 134) further comprises the step of determining one or more local addresses (170) of the one or more network appliances (105) and determining a mapping from one or more gateway addresses (180-1, 125-2, 127-3) associated with the gateway (135) to the one or more local addresses (170), wherein the gateway configuration information (139, 145, 134) comprises the mapping.

4. The method (e.g., 400) of claim 1, wherein the steps of determining gateway configuration information (139, 145, 134) further comprises the step of determining one or more stream types for the one or more content streams 190, wherein the gateway configuration information (139, 145, 134) comprises the one or more stream types.

5. The method (e.g., 400) of claim 1, wherein the step of determining gateway configuration information (139, 145, 134) further comprises the step of determining one or more global ports (146) to open on the gateway (135), wherein the gateway configuration information (139, 145, 134) comprises the one or more global ports (146).
6. The method (e.g., 400) of claim 5, wherein the step of determining one or more global ports (146) to open further comprises the step of determining one or more global ports (146) to open on the gateway (135) for the requested content (164).
7. The method (e.g., 400) of claim 5, wherein a given one of the one or more network appliances (105) is associated with a plurality of ports (113), and wherein the step of determining one or more global ports (146) to open on the gateway (135) further comprises the step of determining a mapping (e.g., 139) from the one or more global ports (146) to the plurality of ports (113) for the given network appliance (105), the gateway configuration information (139, 145, 134) comprising the mapping (e.g., 139).
8. The method (e.g., 400) of claim 6, wherein a first content (164) requires more global ports (146) than a second content (164).
9. The method (e.g., 400) of claim 1, wherein:
the request (120-1, 120-2) further comprises information (e.g., 129-1, 130-1, and 132-1) corresponding to the one or more network appliances (105); and
the step of determining gateway configuration information (139, 145, 134) further comprises the step of comparing the information corresponding to the one or more network appliances (105) with stored information (161, 175).
10. The method (e.g., 400) of claim 9, wherein the information (e.g., 129-1, 130-1, and 132-1) corresponding to the one or more network appliances (105) comprises one or more network appliances (105) identifications.

11. The method (e.g., 400) of claim 9, wherein the information (e.g., 129-1, 130-1, and 132-1) corresponding to the one or more network appliances (105) comprises one or more of the following: one or more addresses (129-1) and one or more ports (130-1).

12. The method (e.g., 400) of claim 9, wherein:

the information (e.g., 129-1, 130-1, and 132-1) corresponding to the one or more network appliances (105) comprises a unique identification (114) for each of the one or more network appliances (105);

the stored information (161, 175) comprises a plurality of unique identifications (173) corresponding to a plurality of network appliances (105);

the stored information (161, 175) further comprises a gateway type (171) and a gateway communication information (172) corresponding to one or more network appliances (105); and

the step of determining gateway configuration information (139, 145, 134) further comprises the step of when a match occurs between a unique identification (114) in the information (e.g., 129-1, 130-1, and 132-1) corresponding to the one or more network appliances (105) and a given unique identification (173) in the stored information (161, 175), determining the gateway type (171) and gateway communication information (172) corresponding to the given unique identification (173).

13. The method (e.g., 400) of claim 12, wherein the step of communicating the gateway configuration information (139, 145, 134) further comprises the step of using the gateway communication information (172) in order to communicate with the gateway (135).

14. The method (e.g., 400) of claim 1, wherein the step of communicating the gateway configuration information (139, 145, 134) with the gateway (135) further comprises the step of communicating with a remote programming interface (147) on the gateway (135).

15. The method (e.g., 400) of claim 1, wherein the step of communicating the gateway configuration information (139, 145, 134) with the gateway (135) further comprises the step of sending one or more commands (120-3, 133) to the gateway (135) in order to communicate the gateway configuration to the gateway (135).

16. A system (185) for remotely controlled gateway (135) management, comprising:

a memory (e.g., 107, 137, 157); and

at least one processor (e.g., 106, 136, 156), coupled to the memory (e.g., 107, 137, 157), operative to:

receive a request (120-1, 120-2) for content (164), the request (120-1, 120-2) comprising global addressing information (125-2, 126-2) of a gateway (135) and corresponding to one or more network appliances (105) on a local network (165) accessible via the gateway (135);

determine gateway configuration information (139, 145, 134) suitable for configuring the gateway (135) to pass one or more content streams 190, each comprising portions of the content (164), to the one or more network appliances (105); and

communicate the gateway configuration information (139, 145, 134) with the gateway (135).

17. A method (e.g., 300) for remotely controlled gateway (135) management, the method comprising the steps of:

sending a request (120-1, 120-2) for content (164), the request (120-1, 120-2) comprising global addressing information (125-2, 126-2) of a gateway (135) and corresponding to one or more network appliances (105) on a local network (165) accessible via the gateway (135);

receiving gateway configuration information (139, 145, 134) suitable for configuring the gateway (135) to pass one or more content streams (190), each comprising portions of the content (164), to the one or more network appliances (105); and

configuring the gateway (135) in accordance with the gateway configuration information (139, 145, 134).

18. The method (e.g., 300) of claim 17, wherein:

the step of receiving gateway configuration information (139, 145, 134) suitable for configuring the gateway (135) to pass one or more content streams 190 further comprises the step of determining one or more global ports (146) in the gateway configuration information (139, 145, 134); and

the step of configuring the gateway (135) in accordance with the gateway configuration information (139, 145, 134) further comprises the step of opening the one or more global ports (146).

19. The method (e.g., 300) of claim 18, wherein:

the step of receiving gateway configuration information (139, 145, 134) suitable for configuring the gateway (135) to pass one or more content streams (190) further comprises the step of determining one or more local addresses (170) in the gateway configuration information (139, 145, 134), wherein a given one of the local addresses (170) correlates to a given one of the one or more global ports (146); and

the step of configuring the gateway (135) in accordance with the gateway configuration information (139, 145, 134) further comprises the step of sending a content stream (190) received on the given open port (146) to the given local address (170).

20. The method (e.g., 300) of claim 19, wherein:

the step of receiving gateway configuration information (139, 145, 134) suitable for configuring the gateway (135) to pass one or more content streams 190 further comprises the step of determining one or more local ports (113) in the gateway configuration information (139, 145, 134), wherein a given one of the local ports (113) correlates to the local address (170); and

the step of configuring the gateway (135) in accordance with the gateway configuration information (139, 145, 134) further comprises the step of sending a content

stream (190) received on the given open port to the given local address (170) and the given port (113).

21. The method (e.g., 300) of claim 18, wherein:

the step of receiving gateway configuration information (139, 145, 134) suitable for configuring the gateway (135) to pass one or more content streams (190) further comprises the step of determining one or more server addresses (180-3, 198) in the gateway configuration information (139, 145, 134), wherein a given one of the server addresses (180-3, 198) correlates to a given one of the one or more global ports (146); and

the step of configuring the gateway (135) in accordance with the gateway configuration information (139, 145, 134) further comprises the step of rejecting a content stream (190) received on the given global port when a source address (e.g., 125-3) associated with the content stream (190) does not match the given server address (180-3, 198).

22. The method (e.g., 300) of claim 17, wherein the step of configuring the gateway (135) in accordance with the gateway configuration information (139, 145, 134) further comprises the step of configuring a router (138) with the gateway configuration information (139, 145, 134).

23. The method (e.g., 300) of claim 17, wherein the step of configuring the gateway (135) in accordance with the gateway configuration information (139, 145, 134) further comprises the step of configuring a firewall (140) with the gateway configuration information (139, 145, 134).

24. A system (135) for remotely controlled gateway (135) management, comprising:

a memory (137); and

at least one processor (136), coupled to the memory (137), operative to:

send a request (120-1, 120-2) for content (164), the request (120-1, 120-2) comprising global addressing information (125-2, 126-2) of a gateway (135) and corresponding to one or more network appliances (105) on a local network (165) accessible via the gateway (135);

receive gateway configuration information (139, 145, 134) suitable for configuring the gateway (135) to pass one or more content streams 190, each comprising portions of the content (164), to the one or more network appliances (105); and

configure the gateway (135) in accordance with the gateway configuration information (139, 145, 134).